



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/814,269 | 04/01/2004 | Hiroyuki Ishida | Q80854 | 8474 |

7590 09/08/2005
Sughrue Mion PLLC
2100 Pennsylvania Avenue, N. W.
Washington, DC 20037-3213

EXAMINER

TSIDULKO, MARK

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2875

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/814,269 | ISHIDA ET AL. | |
| | Examiner | Art Unit | |
| | Mark Tsidulko | 2875 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

SUPPLEMENTAL DETAILED ACTION

The Office Action below is substantially a repeat of the Non-Final Office Action sent 5/27/2005, now further addressing of claim 4.

Claim Objections

Claim 3 objected to because of the following informalities: the phrase “...*light from at lease a part of an opening...*” (line 5) should be changed to “...*light from at least a part of an opening...*”. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thominet (US 6,565,247) in view of Ueda (US 6,617,615).

Referring to Claim 1 Thominet discloses (Figs.1, 4) a vehicle headlight (col.1, lines 57-64) having a plurality of LEDs as a light source and an optical device [14] and [16] to form a cut line to determine a boundary between bright and dark by deflecting the light generated by the LEDs and projecting a shape of the light emitting area.

Thominet discloses the instant claimed invention except for linear type LED.

Art Unit: 2875

Ueda discloses a linear semiconductor light-emitting element (claim 1). Using of this type of LED allow to obtain horizontally wider light distribution pattern and therefore to increase an illuminated area.

Referring to Claim 2 Thominet discloses (Fig.1) a plurality of LEDs.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the linear semiconductor light-emitting element, as taught by Ueda for the device of Thominet, in order to obtain wider illuminated area.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thominet et al. and Ueda as applied to claim 1 above, and further in view of Komoto (US 5,753,940).

Thominet et al. disclose the instant claimed invention except for an active layer and a groove for emitting a light wherein a depth of the groove reaching at least a part of the active layer.

Komoto discloses (Fig.3C) an active layer [3] and a groove for emitting a light wherein a depth of the groove reaching at least a part of the active layer.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the semiconductor of Thominet et al. with the active layer and a groove, as taught by Komoto, for emitting a light to the external of the semiconductor chip.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komoto (US 5,753,940).

Art Unit: 2875

Komoto discloses (Fig.3C) an active layer [3] and a groove for emitting a light wherein a depth of the groove reaching at least a part of the active layer.

It is clearly understood for those skilled in the art of illumination, that the light from the semiconductor element, if to use in a vehicle headlamp, will be generated in a direction corresponding to at least a part of a cut line between bright and dark.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the active layer and a groove, as taught by Komoto, for directing the light outward of the semiconductor element.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Tsidulko whose telephone number is (571)272-2384. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 2875

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M.T.

May 27, 2005

A handwritten signature in black ink, appearing to read 'JAWard', is positioned above the printed name.

**JOHN ANTHONY WARD
PRIMARY EXAMINER**